UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,201	03/02/2004	Satoru Watanabe	500.43555X00	1026

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EXAMINER
CRAIG, DWIN M

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-6</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6</u> is/are rejected.

7)☒ Claim(s) <u>5</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>3/2/2004</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-6 have been presented for examination.

Specification

2.   A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the specification contains numerous examples of improper English language, for example:

Page 1 lines 4 & 5, *"As a problem concerning a job execution plan, for example, there is a problem of job scheduling."* The sentence should read, *Concerning job execution plans; there is the problem of job scheduling,* passive voice and awkward sentence construction.

Page 2 lines 4-6, *"Accordingly, for evaluating the execution plan in the multi-task environment, discrete event simulation is widely used."* The word *Multi-task* should be replaced with *Multi-tasking,* incorrect tense of a pronoun,   .

Page 3 lines 1-4, *"For this, a great time is required for the simulation execution, and there is a case that the execution plan evaluation is not completed within a time practically required."* The sentence should read, *"For this, a great <u>amount</u> of time is required for simulation execution... ",* there is a lack of a proper adverb.

Page 3 lines 16-18, *"The degree of matching between the simulation and the fact (simulation accuracy) varies according to the simulation model."* The Applicant was trying to disclose that simulation accuracy improves with better simulation models, however the current sentence is very confusing and fails to clearly convey what is being described,

Page 3 lines 24-26, *"When modifying the simulation model, lowering of the simulation accuracy should be suppressed as a second object."* the preceding text fails to define what the *first object* is and therefore this sentence makes no sense.

2.1   A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

2.2   A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

2.3   The use of the trademark HYPERFORMIX® has been noted in this application as disclosed on page 2 of the specification. It should be capitalized wherever it appears and be accompanied by the generic terminology. Further, the examiner notes that HYPERFZORMIX® is a registered trademark and as such should display the registered trademark symbol ®.

Although the use of trademarks is permissible in patent applications, the proprietary

nature of the marks should be respected and every effort made to prevent their use in any manner

which might adversely affect their validity as trademarks.

Claims Objections

3.   Claim 5 is objected to because of the following limitation, *the model creation section*

calculates the job interference degree, there appears to be a lack of antecedent basis for the

phrase *job interference degree.*

Correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

4.   Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent

6,560,569 Abu El Ata, in view of US Patent 5,828,867 Pennell.

4.1   As regards independent claim 1, *Abu El Ata* teaches, *An evaluation system for evaluating*

a job execution plan by using a simulation, comprising: an input section enabling input of the

job execution plan

(Figure 1 reference 12 and Figure 2 reference 200 and Figure 3 references 12 & 16 and

Figure 4 reference 200 and Col. 2 lines 17-18 and Col. 3 lines 48-52 and the descriptive text

regarding the cited references in the cited figures)

the functional equivalent of *and a model database for storing a job model;*

(Figure 1 reference 22 and Figure 3 reference 50 and Figure 7 reference 22 and Col. 1 lines

56-67 and Col. 2 lines 33-36 and Col. 2 lines 58-61, "...includes providing a library of hardware

and software components..." a *library of models* is functionally equivalent to a *database of*

models and Col. 7 lines 24-27),

a model creation section for creating a simulation model from the job model stored in the

model database;

(Figure 1 reference 18 and all of Figure 2 and Figure 3 reference 18 and Figure 5 reference

308 and Col. 3 line 49 and Col. 4 lines 53-67 and Col. 5 lines 1-24, "...The construction module

18 then constructs additional models **22**..." and Col. 7 lines 28-42)

an evaluation section for evaluating the execution plan;

(Figure 1 reference 24 and Figure 3 reference(s) 18, 42 and 24 all of Figure 5 and Figure 6

reference 412 and Figure(s) 7-9 and all of the descriptive text including, Col. 2 lines 10-16 and

Col. 2 lines 42-67 and Col. 3 lines 48-58 and Col. 5 lines 1-67 and Col. 6 lines 1-63 and Col. 7

lines 42-67 and Col. 8 lines 1-40)

and an output section for outputting the evaluation result

(Figure 1 reference(s) 26 and 28, Figure 2 reference 220 and Figure 3 reference 62 and 28

and all of the descriptive text therein including, Col. 2 line 22-24 "...an output module for

outputting the models and their performance metrics...").

However, *Abu El Ata* does not expressly disclose, *a limit time* or *a simulation execution*

section for executing the simulation.

Pennell discloses *a limit time*

(Figure 2 reference(s) 34, 36, 38, 40, 42 & 44 and the descriptive text and Col. 4 lines 1-61

and specifically, Col. 4 line 41, "...the time required must e entered...")

and *a simulation execution section for executing the simulation*

(Col. 1 lines 15-23 and Col. 4 lines 8-18, note line 13 "SES/workbench" this is the same

modeling and simulation methodology disclosed in Applicant's specification).

Abu El Ata and *Pennell* are analogous art because they are from the same problem solving

area of model creation and improvement for use in a simulation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the

art to have used the task time simulation template methods of *Pennell* with the model

improvement method of *Abu El Ata.*

The suggestion for doing so would have been, to provide a method for preparing a discrete

event simulation program that eliminates the need to re-design, re-compile, re-build, and debug

the simulation program each time new processes, products, or manufacturing technique(s) <*sic*>

is analyzed, *see Pennell* (Col. 2 lines 40-45).

Therefore, it would have been obvious to combine *Pennell* with *Abu El Ata* to obtain the

invention as specified in claims 1-6.

4.2   As regards dependent claim 2, *Abu El Ata* discloses, an evaluation system, *further*

comprising a performance storage section for storing a performance value of a computer

executing the simulation. (Figure 3, note references to items 24, 46 & 50, the performance

metrics are stored in the component library see also, Col. 4 lines 53-67 and Col. 5 lines 1-67 and

Col. 6 lines 1-27).

4.3   As regards dependent claim 3, *Abu El Ata* does not expressly disclose, *wherein the model*

creation section modifies the method for creating the simulation model according to the limit

time input to the input section and the performance value stored in the performance storage

section.

However, *Pennell* teaches, (Figure(s) 1 & 2 and the descriptive text, more specifically,

Col. 3 lines 41-67 and Col. 4 and Col. 5 lines 1-60 see also Col. 3 lines 19-40, see also Col. 6

lines 35-56).

4.4   As regards dependent claim 4, *Abu El Ata* does not expressly disclose, *wherein the model*

creation section modifies the method for creating the model so that the time required for

executing the simulation of the simulation execution section is equal to or below the limit time

input to the input section.

However, *Pennell* teaches, (Figure(s) 1 & 2 and the descriptive text, more specifically, Col. 3 lines 41-67 and Col. 4 and Col. 5 lines 1-60, see also Col. 3 lines 19-40, see also Col. 6 lines 35-56).

4.5   As regards dependent claim 5, *Abu El Ata* does not expressly disclose, wherein *the method for creating the simulation model from the job model by the model creation section includes a step of setting a parameter of the simulation model and the model creation section calculates the job interference degree from the execution plan input to the input section and modifies the simulation model parameter according to the interference degree calculated.*

However, *Pennell* discloses, (Col. 1 lines 61-67 and Col. 2 lines 1-5, "...with the predetermined parameters...").

4.6   As regards dependent claim 6, *Abu El Ata* discloses, *wherein the output section outputs the simulation model created by the model creation section* (Figure 1 reference(s) 26 and 28, Figure 2 reference 220 and Figure 3 reference 62 and 28 and all of the descriptive text therein including, Col. 2 line 22-24 "...an output module for outputting the models and their performance metrics...").
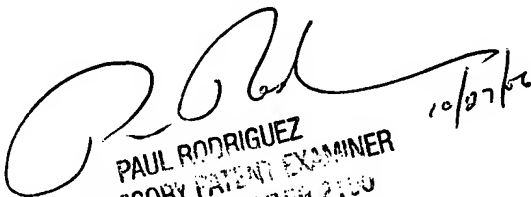
Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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